surface science

Contents

Volume 253 (1991) Nos. 1–3

Surface Science Letters

Computer simulation studies of IR laser excitation of water on a metal surface
E. Spohr and M. Wolfsberg L395

In situ observation of a formate intermediate during CO hydrogenation over alkali-promoted Ru(001) at high pressures
F.M. Hoffmann and M.D. Weisel L402

F^+-desorption mechanism from a $CaF_2(111)$ surface by low-energy electron irradiation
K. Miura, K. Sugiura and H. Sugiura L407

STM study of epitaxial growth of Ge on Si(001)
F. Iwawaki, M. Tomitori and O. Nishikawa L411

A NEXAFS study on the adsorption of ammonia on clean and potassium-promoted iron. *Erratum*
D. Strongin and J. Mowlem L417

Surface Science

Physisorption of CO on Ag(111): investigation of the monolayer and the multilayer through HREELS, ARUPS, and TDS
W. Hansen, M. Bertolo and K. Jacobi 1

Partial oxidation of hydrocarbons on silver: conversion of 1-butene to maleic anhydride by atomically adsorbed oxygen on Ag(110)
J.T. Roberts, A.J. Capote and R.J. Madix 13

Isotope effect in dissociative adsorption of O_2 on Ag(111)
P.H.F. Reijnen, A. Raukema, U. van Slooten and A.W. Kleyn 24

CO and O_2 adsorption on Rh(110)
M. Bowker, Q. Guo and R. Joyner 33

In-situ FT-IRAS study of the CO oxidation reaction over Ru(001). I. Evidence for an Eley–Rideal mechanism at high pressures?
C.H.F. Peden, D.W. Goodman, M.D. Weisel and F.M. Hoffmann 44

In-situ FT-IRAS study of the CO oxidation reaction over Ru(001). II. Coadsorption of carbon monoxide and oxygen
F.M. Hoffmann, M.D. Weisel and C.H.F. Peden 59

Azimuthal reorientation of adsorbed molecules induced by lateral interactions: benzene/Ni(110)
W. Huber, M. Weinelt, P. Zebisch and H.-P. Steinrück 72

LEED structure analysis of $p(\sqrt{3} \times \sqrt{3})R30°$-O/Ni(111)
M.A. Mendez, W. Oed, A. Fricke, L. Hammer, K. Heinz and K. Müller 99

A photoelectron diffraction study of the Ni(100)(2 × 2)–C(p4g) and Ni(100)(2 × 2)–N(p4g) structures
A.L.D. Kilcoyne, D.P. Woodruff, A.W. Robinson, Th. Lindner, J.S. Somers and A.M. Bradshaw 107

The structure of thin NiO(100) films grown on Ni(100) as determined by low-energy-electron diffraction and scanning tunneling microscopy
M. Bäumer, D. Cappus, H. Kuhlenbeck, H.-J. Freund, G. Wilhelmi, A. Brodde and H. Neddermeyer 116

Effect of preadsorbed Ni atoms upon the potassium diffusion on the W(112) plane
R. Błaszczyszyn and Ch. Kleint 129

Alkali adsorption on W(110) studied by metastable impact electron spectroscopy
W. Maus-Friedrichs, S. Dieckhoff, M. Wehrhahn and V. Kempter 137

Angle-resolved photoemission study of hydrogen adsorbed on Fe(110)
T. Maruyama, Y. Sakisaka, H. Kato, Y. Aiura and H. Yanashima 147

Step structure evolution on electrostatic neutral zinc oxide vicinal surfaces – studied by spot profile analysis – LEED
C. Kroll, M. Abraham and W. Göpel 157

Induced ordering of ethylidyne on the Pd(111) surface by the preadsorption of oxygen: a LEED and HREELS study
P.A.P. Nascente, M.A. Van Hove and G.A. Somorjai 167

Growth and morphology of palladium particles epitaxially deposited on a MgO(100) surface
C.R. Henry, C. Chapon, C. Duriez and S. Giorgio 177

Molecular beam study of the chemisorption of CO on well shaped palladium particles epitaxially oriented on MgO(100)
C. Duriez, C.R. Henry and C. Chapon 190

Circular dichroism in photoemission from oriented molecules at surfaces
C. Westphal, J. Bansmann, M. Getzlaff, G. Schönhense, N.A. Cherepkov, M. Braunstein, V. McKoy and R.L. Dubs 205

Further characterisation of Pd deposited on an extensively oxidised Zn(001) support
C.A. Leighton, A.J. Swift and J.C. Vickerman 220

Identification of second layer adsorbates: water and chloroethane on Pt(111)
S.K. Jo, J. Kiss, J.A. Polanco and J.M. White 233

Time-of-flight scattering and recoiling spectrometry (TOF-SARS) analysis of Pt{110}. I. Quantitative structural study of the clean (1 × 2) surface
F. Masson and J.W. Rabalais 245

Contents continued on inside cover

Time-of-flight scattering and recoiling spectrometry (TOF-SARS) analysis of Pt{110}. II. The (1 × 2)-to-(1 × 3) interconversion and characterization of the (1 × 3) phase
F. Masson and J.W. Rabalais 258

Ordered structures and structural transformations on a K-covered Au(110) surface
D.K. Flynn-Sanders, K.D. Jamison, J.V. Barth, J. Wintterlin, P.A. Thiel, G. Ertl and R.J. Behm 270

A low-energy electron microscopy study of the system Si(111)–Au
W. Święch, E. Bauer and M. Mundschau 283

Identification of ordered atomic structures of Ba on the Si(100) surface
W.C. Fan and A. Ignatiev 297

Experimental study by He diffraction (TEAS) of a vicinal silicon (100) surface: Si(1 1 17)
L. Barbier and J. Lapujoulade 303

The adsorption of α-Sn on the Sb rich (1 × 1) phase of InSb(001) as viewed by LEED and atom scattering
B.F. Mason, C. MacPherson and B.R. Williams 313

An investigation of vibrationally assisted adsorption: the cases H_2/Cu(110) and H_2/Al(110)
H.F. Berger and K.D. Rendulic 325

EAM study of surface self-diffusion of single adatoms of fcc metals Ni, Cu, Al, Ag, Au, Pd, and Pt
C.L. Liu, J.M. Cohen, J.B. Adams and A.F. Voter 334

Rate constants for cesium ion and atom desorption on iridium with graphite islands: parallel processes studied by field reversal
T. Hansson, J.B.C. Pettersson and L. Holmlid 345

Reconstruction of STM and AFM images distorted by finite-size tips
D. Keller 353

Pseudo-state theory of surface ion neutralization
B.L. Burrows, K.W. Sulston, A.T. Amos and S.G. Davison 365

Density functional calculation of the vibrational stretching mode of CO coadsorbed with ammonia on palladium clusters
C. Mijoule, Y. Bouteiller and D.R. Salahub 375

An analysis of methanol synthesis from CO and CO_2 on Cu and Pd surfaces by the bond-order-conservation–Morse-potential approach
E. Shustorovich and A.T. Bell 386

The structure of the diamond (111) surface – a SLAB-MINDO study
X.M. Zheng and P.V. Smith 395

High-temperature expansion for short-range order of adsorbates with dipolar repulsive interaction
K. Kakitani, H. Kobayashi and A. Yoshimori 405

Electromagnetic surface waves on a free-electron-like medium in the presence of a DC current: the dispersion relation
O. Keller, A. Liu and J.H. Pedersen 416

New book 429

Author index 430

Subject index 435

Instructions for Authors 445